

PALMETTO UTILITIES, INC.  
ELGIN, SOUTH CAROLINA

RATE OF RETURN

EXHIBIT

TO ACCOMPANY THE  
DIRECT TESTIMONY

MARCH 2020

Prepared by:  
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Valley Forge, Pennsylvania

Palmetto Utilities, Inc.  
Cost of Capital and Fair Rate of Return  
Test Year Ended August 31, 2019

<u>Type of Capital</u>	<u>Ratios*</u>	<u>Cost Rate*</u> (%)	<u>Weighted Cost Rate</u> (%)
Debt	41.79%	5.89	2.46%
Common Equity	<u>58.21</u>	10.50	<u>6.11</u>
Overall Cost of Capital	<u>100.00%</u>		<u>8.57%</u>

\*

Capital Structure from PUI's filing and debt cost is calculated below:

Total Interest Expense	4,135,395
Total Debt	÷ 70,198,798
Effective Cost Rate	<u>5.89%</u>

Before Income Tax Interest Coverage (x) 4.3x  
(Based on effective income tax rate of 24.95%.)

Capital Structure Ratios for  
The Water Group Followed by Analysts  
At 9/30/2019 and Estimated for 2023

	<u>9/30/2019</u>	Est.(1) <u>2023</u>
<u>Water Group Followed by Analysts</u>		
Long-term Debt	46.7 %	43.4 %
Preferred Stock	0.1	0.0
Common Equity	<u>53.2</u>	<u>56.6</u>
Total	<u>100.0</u> %	<u>100.0</u> %

Notes: (1) Project by Value Line for the period 2022 to 2024.

Source of Information: Value Line Investment Survey, 1/10/20, and S&P Capital IQ

Capital Structure Ratios for  
The Water Group Followed by Analysts  
At 9/30/2019 and Estimated for 2023

	Actual at 9/30/19		
	Long-term Debt	Preferred Stock	Common Equity
<u>Water Group Followed by Analysts</u>			
American States Water Co	45.1	0.0	54.9
American Water Works Co Inc	58.7	0.0	41.3
Aqua America Inc	44.4	0.0	55.6
California Water Service Gp	52.2	0.0	47.8
Middlesex Water Co	46.6	0.4	53.0
SJW Corp	36.3	0.0	63.7
York Water Co	<u>43.9</u>	<u>0.0</u>	<u>56.1</u>
Average	<u>46.7</u>	<u>0.1</u>	<u>53.2</u>
	Estimated at 2023		
	Long-term Debt	Preferred Stock	Common Equity
<u>Water Group Followed by Analysts</u>			
American States Water Co	46.0	0.0	54.0
American Water Works Co Inc	59.0	0.0	41.0
Aqua America Inc	53.0	0.0	47.0
California Water Service Gp	39.5	0.0	60.5
Middlesex Water Co	39.5	0.0	60.5
SJW Corp	32.5	0.0	67.5
York Water Co	<u>34.0</u>	<u>0.0</u>	<u>66.0</u>
Average	<u>43.4</u>	<u>0.0</u>	<u>56.6</u>

Source of Information: Value Line Investment Survey, 1/10/20, and S&P Capital IQ

Palmetto Utilities, Inc.  
Five Year Analysis  
2014 - 2018 (1)

<u>Ln #</u>		<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>		
							Average	
							<u>Ann. Chg(%)</u>	
	Investor Provided Capital(\$)							
1	Permanent Capital	111.433	115.117	71.535	58.143	44.356	28.0	
2	Short-Term Debt	<u>0.000</u>	<u>0.000</u>	<u>2.877</u>	<u>2.294</u>	<u>2.823</u>		
3	Total Capital	<u>111.433</u>	<u>115.117</u>	<u>74.412</u>	<u>60.437</u>	<u>47.179</u>	25.7	
4	Total Revenue(\$)	19.704	17.857	16.916	16.186	15.672	5.9	
5	Construction(\$)	3.102	72.531	4.727	3.416	2.786	349.9	
							Five Year	Average
							<u>Average</u>	<u>Central</u>
6	Effective Income Tax Rate(%)	117.8	15.7	37.7	42.2	7.9	44.3	Values(9)
	Capitalization Ratios(%)							
7	Long-Term Debt	74.2	74.9	68.8	69.0	73.3	72.0	72.2
8	Preferred Stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	Common Equity	<u>25.8</u>	<u>25.1</u>	<u>31.2</u>	<u>31.0</u>	<u>26.7</u>	28.0	27.8
	Total	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>		
10	Total Debt	74.2	74.9	70.0	70.1	74.9	72.8	73.1
11	Preferred Stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	Common Equity	<u>25.8</u>	<u>25.1</u>	<u>30.0</u>	<u>29.9</u>	<u>25.1</u>	27.2	26.9
	Total	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>		
	Rates on Average Capital(2)(%)							
13	Total Debt	5.1	4.9	4.4	4.9	5.3	4.9	5.0
14	Long-Term Debt	5.1	5.0	4.6	5.2	5.7	5.1	5.1
15	Preferred Stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Coverage - Including AFC(3)(x)							
16	PreTax Interest	1.4	3.3	4.2	3.8	4.0	3.3	3.7
17	PreTax Interest + Pref. Div	1.4	3.3	4.2	3.8	4.0	3.3	3.7
18	PostTax Interest + Pref. Div	0.9	2.9	3.0	2.6	3.7	2.6	2.8
	Coverage - Excluding AFC(3)(x)							
19	PreTax Interest	1.4	2.4	3.9	3.8	3.9	3.1	3.4
20	PreTax Interest + Pref. Div	1.4	2.4	3.9	3.8	3.9	3.1	3.4
21	PostTax Interest + Pref. Div	0.9	2.0	2.7	2.6	3.7	2.4	2.4
22	GCF / Interest Coverage(4)(x)	2.8	3.5	5.0	3.9	5.7	4.2	4.1
23	Coverage of Common Dividends(5)(x)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	Construction / Avg. Tot. Capital(%)	2.7	76.5	7.0	6.3	5.9	19.7	6.4
25	NCF / Construction(6)(%)	248.2	11.9	174.0	162.2	309.9	181.2	194.8
26	AFC / Income for Common Stock	(35.2)	47.5	16.6	1.5	0.9	6.3	6.3
27	GCF / Avg. Tot. Debt(7)(%)	9.1	12.5	17.4	14.3	24.4	15.5	14.7
28	GCF / Permanent Capital(8)(%)	6.9	7.5	11.5	9.5	19.5	11.0	9.5

See page 3 of this Schedule for notes.

Palmetto Utilities, Inc.  
Five Year Analysis  
2014-2018

Notes:

- (1) Based upon the combined financials of Palmetto Utilities, Inc. and Palmetto of Richland County, LLC.
- (2) Computed by relating total debt interest, long-term debt interest and preferred dividend expense to average of beginning and ending balance of the respective capital outstanding.
- (3) The coverage calculations, both including and excluding AFC, represent the number of times available earnings cover the various fixed charges. It should be noted that the pretax coverage including preferred dividends has been grossed up for the income tax paid on the preferred dividends.
- (4) GCF or gross cash flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less AFC), plus interest charges, divided by interest charges.
- (5) GCF (see note 4) less all preferred dividends which cover common dividends.
- (6) The percent of GCF (see note 4) less all cash dividends which cover gross construction expenditures.
- (7) GCF (see note 4) as a percentage of Permanent Capital (long-term debt, current maturities and preferred, preference and common equity).
- (8) GCF (see note 4) as a percentage of average total debt.
- (9) Average of the second, third and fourth quintile values.

Source of Information: Annual Reports filed with the SC PSC

<u>Ln #</u>		<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	Average <u>Ann. Chg(%)</u>	
				(Millions of \$)				
	Investor Provided Capital(\$)							
1	Permanent Capital	3,166.736	2,769.010	2,568.604	2,520.684	2,389.712	7.4	
2	Short-Term Debt	<u>224.450</u>	<u>253.900</u>	<u>260.910</u>	<u>121.388</u>	<u>101.836</u>		
3	Total Capital	3,391.186	3,022.910	2,829.514	2,642.072	2,491.548	8.0	
4	Total Revenue(\$)	856.759	834.658	812.504	785.487	762.461	2.9	
5	Construction(\$)	387.630	358.338	322.222	276.462	232.566	13.7	
6	Effective Income Tax Rate(%)	14.4	32.1	32.0	31.5	31.2	Five Year <u>Average</u> 28.2	Average Central <u>Values(9)</u> 31.5
	Book Capitalization Ratios(%)							
7	Long-Term Debt	44.8	44.9	45.1	46.2	45.3	45.3	45.1
8	Preferred Stock	0.1	0.1	0.1	0.1	0.1	0.1	0.1
9	Common Equity	<u>55.1</u>	<u>55.0</u>	<u>54.8</u>	<u>53.7</u>	<u>54.6</u>	54.6	54.8
	Total	100.0	100.0	100.0	100.0	100.0		
10	Total Debt	48.4	48.9	48.4	47.8	47.2	48.1	48.4
11	Preferred Stock	0.1	0.1	0.1	0.1	0.1	0.1	0.1
12	Common Equity	<u>51.6</u>	<u>51.0</u>	<u>51.5</u>	<u>52.1</u>	<u>52.7</u>	51.8	51.6
	Total	100.0	100.0	100.0	100.0	100.0		
	Rates on Average Capital(2)(%)							
13	Total Debt	4.9	5.0	5.1	5.2	5.4	5.1	5.1
14	Long-Term Debt	NA	NA	NA	NA	NA	NA	0.0
15	Preferred Stock	5.9	5.9	5.9	5.9	5.7	5.9	5.9
	Coverage - Including AFC(3)(x)							
16	PreTax Interest	3.7	4.8	4.6	4.4	4.5	4.4	4.5
17	PreTax Interest + Pref. Div	3.7	4.7	4.6	4.4	4.5	4.4	4.5
18	PostTax Interest + Pref. Div	3.3	3.5	3.4	3.3	3.4	3.4	3.4
	Coverage - Excluding AFC(3)(x)							
19	PreTax Interest	3.6	4.6	4.6	4.3	4.5	4.3	4.5
20	PreTax Interest + Pref. Div	3.6	4.6	4.5	4.3	4.5	4.3	4.5
21	PostTax Interest + Pref. Div	3.3	3.4	3.4	3.2	3.4	3.3	3.4
22	GCF / Interest Coverage(4)(x)	4.9	5.9	5.7	5.9	6.0	5.7	5.9
23	Coverage of Common Dividends(5)(x)	3.1	3.7	3.8	3.9	4.3	3.8	3.8
24	Construction / Avg. Tot. Capital(%)	13.0	13.7	13.1	10.7	9.7	12.0	13.0
25	NCF / Construction(6)(%)	46.8	59.3	64.6	84.1	98.6	70.7	64.6
26	AFC / Income for Common Stock	4.3	4.4	3.3	2.8	2.0	3.4	3.3
27	GCF / Avg. Tot. Debt(7)(%)	18.7	23.4	23.6	24.9	27.0	23.5	23.6
28	GCF / Permanent Capital(8)(%)	9.6	12.0	11.7	12.0	13.0	11.7	12.0

See page 2 of this Schedule for notes.

Water Group Followed by Analysts  
Five Year Analysis  
2014-2018

Notes:

- (1) Average of the achieved results for each individual company based upon the financials as originally reported.
- (2) Computed by relating total debt interest, long-term debt interest and preferred dividend expense to average of beginning and ending balance of the respective capital outstanding.
- (3) The coverage calculations, both including and excluding AFC, represent the number of times available earnings cover the various fixed charges. It should be noted that the pretax coverage including preferred dividends has been grossed up for the income tax paid on the preferred dividends.
- (4) GCF or gross cash flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less AFC), plus interest charges, divided by interest charges.
- (5) GCF (see note 4) less all preferred dividends which cover common dividends.
- (6) The percent of GCF (see note 4) less all cash dividends which cover gross construction expenditures.
- (7) GCF (see note 4) as a percentage of Permanent Capital (long-term debt, current maturities and preferred, preference and common equity).
- (8) GCF (see note 4) as a percentage of average total debt.
- (9) Average of the second, third and fourth quintile values.

Source of Information: Standard & Poor's and Annual Reports



S&P Utilities							
Five Year Analysis							
2014 - 2018 (1)							
Ln #		2018	2017	2016	2015	2014	
(Millions of \$)							Average Ann. Chg(%)
	Investor Provided Capital(\$)						
1	Permanent Capital	42,323.997	40,690.581	38,624.665	34,358.434	32,990.202	6.5
2	Short-Term Debt	<u>3,890.170</u>	<u>3,085.451</u>	<u>2,768.443</u>	<u>2,540.447</u>	<u>2,739.215</u>	
3	Total Capital	46,214.168	43,776.032	41,393.108	36,898.880	35,729.417	6.7
4	Total Revenue(\$)	14,648.106	14,279.409	13,603.506	13,672.916	14,392.492	0.5
5	Construction(\$)	4,581.267	4,480.863	4,390.020	3,948.059	3,608.350	6.2
6	Effective Income Tax Rate(%)	31.7	18.0	26.2	32.9	29.6	Five Year Average 27.7
	Book Capitalization Ratios(%)						Average Central Values(9)
7	Long-Term Debt	55.2	56.7	56.0	53.8	52.9	54.9
8	Preferred Stock	0.9	0.5	0.6	0.7	0.7	0.7
9	Common Equity	<u>43.8</u>	<u>42.8</u>	<u>43.4</u>	<u>45.5</u>	<u>46.4</u>	44.4
	Total	100.0	100.0	100.0	100.0	100.0	43.8
10	Total Debt	59.0	59.8	59.1	56.8	56.3	58.2
11	Preferred Stock	0.9	0.4	0.5	0.7	0.7	0.6
12	Common Equity	<u>40.1</u>	<u>39.8</u>	<u>40.4</u>	<u>42.5</u>	<u>43.0</u>	41.2
	Total	100.0	100.0	100.0	100.0	100.0	40.4
	Rates on Average Capital(2)(%)						
13	Total Debt	4.3	4.3	4.3	4.4	4.7	4.4
14	Long-Term Debt	4.6	4.8	5.0	5.1	5.0	4.9
15	Preferred Stock	4.1	3.8	3.2	3.4	3.5	3.6
	Coverage - Including AFC(3)(x)						
16	PreTax Interest	3.1	3.3	3.2	3.7	3.6	3.4
17	PreTax Interest + Pref. Div	3.1	3.2	3.1	3.6	3.5	3.3
18	PostTax Interest + Pref. Div	2.8	2.8	2.5	2.7	2.7	2.7
	Coverage - Excluding AFC(3)(x)						
19	PreTax Interest	3.0	3.1	3.1	3.6	3.5	3.3
20	PreTax Interest + Pref. Div	3.0	3.1	3.0	3.5	3.5	3.2
21	PostTax Interest + Pref. Div	2.7	2.7	2.4	2.7	2.6	2.6
22	GCF / Interest Coverage(4)(x)	5.1	5.0	5.0	5.5	5.2	5.1
23	Coverage of Common Dividends(5)(x)	3.7	3.3	3.1	3.5	4.0	3.5
24	Construction / Avg. Tot. Capital(%)	10.9	11.3	11.8	11.5	11.1	11.3
25	NCF / Construction(6)(%)	71.3	61.2	54.9	65.6	75.4	65.7
26	AFC / Income for Common Stock	4.5	11.3	6.2	4.3	6.2	6.5
27	GCF / Avg. Tot. Debt(7)(%)	17.1	16.9	16.3	19.0	19.4	17.7
28	GCF / Permanent Capital(8)(%)	10.7	10.4	9.6	11.1	11.3	10.6

See page 2 of this Schedule for notes.

S&P Public Utilities  
Five Year Analysis  
2014-2018

Notes:

- (1) Market value weighted achieved results for each individual company based upon the financials as originally reported.
- (2) Computed by relating total debt interest, long-term debt interest and preferred dividend expense to average of beginning and ending balance of the respective capital outstanding.
- (3) The coverage calculations, both including and excluding AFC, represent the number of times available earnings cover the various fixed charges. It should be noted that the pretax coverage including preferred dividends has been grossed up for the income tax paid on the preferred dividends.
- (4) GCF or gross cash flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less AFC), plus interest charges, divided by interest charges.
- (5) GCF (see note 4) less all preferred dividends which cover common dividends.
- (6) The percent of GCF (see note 4) less all cash dividends which cover gross construction expenditures.
- (7) GCF (see note 4) as a percentage of Permanent Capital (long-term debt, current maturities and preferred, preference and common equity).
- (8) GCF (see note 4) as a percentage of average total debt.
- (9) Average of the second, third and fourth quintile values.

Source of Information: Standard & Poor's, Moody's and Annual Reports

Risk Measures for the Common Stock of  
The Water Group Followed by Analysts and the S&P Utilities

	Recent S&P Issuer Credit <u>Rating</u>	Stock <u>Exchange</u>	Recent S&P Quality <u>Ranking</u>	Value Line <u>Beta</u>	Recent Market <u>Value</u> (Mill \$)	Market <u>Quartile</u>	Market Quartile <u>Name</u>
<u>Water Group Followed by Analysts</u>							
American States Water Co	A+	NYSE	High (A)	0.65	3,262.489	2	Mid-Cap
American Water Works Co Inc	A	NYSE	Above Average (A-)	0.55	24,621.714	1	Large-Cap
Aqua America Inc	A	NYSE	High (A)	0.65	11,210.770	2	Mid-Cap
California Water Service Gp	A+	NYSE	Above Average (A-)	0.70	2,530.501	3	Low-Cap
Middlesex Water Co	A	NasdaqGS	High (A)	0.75	1,137.540	3	Low-Cap
SJW Corp	A-	NYSE	Average (B+)	0.60	2,087.284	3	Low-Cap
York Water Co	<u>A-</u>	NasdaqGS	<u>High (A)</u>	<u>0.70</u>	<u>615.139</u>	<u>4</u>	<u>Mico-Cap</u>
Average	<u>A</u>		<u>Above Average (A-)</u>	<u>0.66</u>	<u>2,530.501</u>	<u>3</u>	<u>Low-Cap</u>
<u>S&amp;P Public Utilities</u>							
AES Corp (The)	BB+	NYSE	Lower (B-)	1.15	13,184.908	2	Mid-Cap
Alliant Energy Corp	A-	NasdaqGS	High (A)	0.60	14,266.757	1	Large-Cap
Ameren Corp	BBB+	NYSE	Above Average (A-)	0.60	20,186.744	1	Large-Cap
American Electric Power Co Inc	A-	NYSE	Average (B+)	0.55	51,479.658	1	Large-Cap
American Water Works Co Inc	A	NYSE	Above Average (A-)	0.55	24,621.714	1	Large-Cap
Atmos Energy Corp	A	NYSE	Above Average (A-)	0.65	14,308.005	1	Large-Cap
CenterPoint Energy Inc.	BBB+	NYSE	Average (B+)	0.80	13,299.361	2	Mid-Cap
CMS Energy Corp	BBB+	NYSE	Above Average (A-)	0.55	19,444.656	1	Large-Cap
Consolidated Edison Inc.	A-	NYSE	Average (B+)	0.45	31,248.458	1	Large-Cap
Dominion Energy Inc	BBB+	NYSE	Below Average (B)	0.55	70,580.257	1	Large-Cap
DTE Energy Co	BBB+	NYSE	Above Average (A-)	0.55	25,475.053	1	Large-Cap
Duke Energy Corp	A-	NYSE	Above Average (A-)	0.50	71,175.479	1	Large-Cap
Edison International	BBB	NYSE	Below Average (B)	0.60	27,450.917	1	Large-Cap
Entergy Corp.	BBB+	NYSE	Below Average (B)	0.60	26,185.906	1	Large-Cap
Eversource Energy	A-	NYSE	Above Average (A-)	NMF	16,445.494	1	Large-Cap
Exelon Corp	BBB+	NasdaqGS	Below Average (B)	0.70	46,262.661	1	Large-Cap
FirstEnergy Corp.	BBB	NYSE	In Reorganization (D)	0.65	27,442.432	1	Large-Cap
NextEra Energy Inc	A-	NYSE	High (A)	0.60	131,089.697	1	Large-Cap
NiSource Inc	BBB+	NYSE	Below Average (B)	0.55	10,948.567	2	Mid-Cap
NRG Energy Inc	BB	NYSE	Below Average (B)	1.25	9,281.313	2	Mid-Cap
Pinnacle West Capital Corp	A-	NYSE	High (A)	0.55	10,981.413	2	Mid-Cap
PPL Corp	A-	NYSE	Average (B+)	0.70	26,166.566	1	Large-Cap
Public Service Enterprise Group Inc	BBB+	NYSE	Average (B+)	0.65	29,939.007	1	Large-Cap
Sempra Energy	BBB+	NYSE	Average (B+)	0.75	45,283.763	1	Large-Cap
Southern Co (The)	A-	NYSE	Average (B+)	0.50	73,830.873	1	Large-Cap
WEC Energy Group Inc	A-	NYSE	High (A)	0.50	31,508.755	1	Large-Cap
Xcel Energy Inc.	<u>A-</u>	NasdaqGS	<u>High (A)</u>	<u>0.50</u>	<u>36,282.412</u>	<u>1</u>	<u>Large-Cap</u>
Average	<u>BBB+</u>		<u>Average (B+)</u>	<u>0.64</u>	<u>33,867.833</u>	<u>1</u>	<u>Large-Cap</u>

Comparative Ratios  
For Palmetto Utilities, Inc.  
The Water Group Followed by Analysts,  
S&P Utilities, and S&P 500  
For the Years 2014-2018(1)

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>Five Year Average</u>
<u>Return on Common Equity(2)</u>						
Palmetto Utilities, Inc.	(1.0)	25.3	20.6	20.9	42.7	21.7
Water Group Followed by Analysts	10.1	11.2	10.9	10.4	11.4	10.8
S&P Utilities	10.9	8.2	7.4	8.5	9.9	9.0
S&P 500	16.0	14.0	12.7	12.0	14.4	13.8
<u>Market/Book Multiple(3)</u>						
Water Group Followed by Analysts	3.1	3.1	2.8	2.3	2.2	2.7
S&P Utilities	1.8	2.2	2.0	1.9	1.9	2.0
S&P 500	3.2	3.1	2.7	2.7	2.7	2.7
<u>Earnings/Price Ratio(4)</u>						
Water Group Followed by Analysts	3.3	3.7	4.0	4.6	5.4	4.2
S&P Utilities	5.2	4.6	3.3	4.0	5.4	4.5
S&P 500	5.1	4.5	4.7	4.4	5.4	4.8
<u>Dividend Payout Ratio(5)</u>						
Palmetto Utilities, Inc.	0.0	0.0	0.0	0.0	0.0	0.0
Water Group Followed by Analysts	60.4	56.4	56.4	57.7	53.2	56.8
S&P Utilities	59.2	89.9	192.4	55.0	77.8	94.9
S&P 500	40.1	43.9	47.7	49.4	38.0	43.8
<u>Dividend Yield(6)</u>						
Water Group Followed by Analysts	2.0	2.0	2.1	2.6	2.7	2.3
S&P Utilities	3.7	3.5	3.6	3.7	3.6	3.6
S&P 500	2.0	2.0	2.2	2.2	2.1	2.1

See next page for Notes.

Comparative Ratios For  
Palmetto Utilities, Inc.,  
The Water Group Followed by Analysts,  
The S&P Utilities, and the S&P 500  
For the Years 2014-2018 (1)

Notes:

- (1) The average of achieved results for the companies in each group. The information for the S&P Public Utilities is market weighted. The information for the S&P 500 is based upon per share information adjusted to price index level.
- (2) Rate of Return on Average Book Common Equity - income available for common equity divided by average beginning and ending year's balance of book common equity.
- (3) Market/Book Ratio - average of yearly high-low market price divided by the average of beginning and ending year's book value per share.
- (4) Earnings/Price Ratio - reported earnings per share yearly divided by the average of yearly high-low market price.
- (5) Dividend Payout Ratio is computed by dividing the yearly reported dividends paid by the yearly income available for common equity.
- (6) Dividend Yield - yearly dividend per share divided by the average yearly high-low market price.

Source of Information: Standard & Poor's and Annual Reports

Capital Intensity and Capital Recovery  
Palmetto Utilities, Inc.  
The Water Group Followed by Analysts, and S&P Utilities  
For the Year 2018

	<u>Capital Intensity</u>	<u>Rate of Capital Recovery</u>	<u>Capital Recovery Years</u>
Palmetto Utilities, Inc.	<u>\$10.77</u>	<u>2.85%</u>	<u>35.0</u>
Water Group Followed by Analysts	<u>\$6.17</u>	<u>2.22%</u>	<u>46.0</u>
S&P Utilities	<u>\$4.33</u>	<u>3.30%</u>	<u>32.9</u>

Relative Size of  
Palmetto Utilities, Inc.  
Versus the Water Group Followed by Analysts  
For the Year 2018

	Palmetto Utilities, Inc. <u>Utilities Inc.</u>	Water Group Followed by <u>Analysts</u>	Water Group Followed by Analysts Vs. Palmetto Utilities, Inc. <u>Utilities Inc.</u>
Total Capitalization (000's)	\$111,433	\$3,402,000	30.5 x
Total Operating Revenues (000's)	\$19,704	\$857,000	43.5 x
Number of Customers	27,008	802,885	29.7 x

Institutional Holdings, Insider Holdings and Percentage of Shares Traded Annually for  
The Water Group Followed by Analysts, and the S&P Utilities

	Water Group Followed by <u>Analysts</u>	S&P <u>Public Utilities</u>
Percentage of common shares held by insiders (1)	2.3%	0.3%
Percentage of common shares held by institutions (2)	70%	82%
Percentage of Common Shares Traded in 2017	84%	150%
Percentage of Common Shares Traded in 2018	116%	193%
Average Number of Months For All Common Shares to Turnover (3)	13.2	7.4

- Notes: (1) An insider is a director or an officer who has a policy-making role or a person who is directly or indirectly the beneficial owner of more than 10% of a certain company's stock. An insider may be either an individual or a corporation. Insiders are required to disclose their purchase/sale transactions to the SEC in which a change in beneficial ownership has occurred. The filings must be submitted before the end of the second business day following the day on which the transaction had been executed.
- (2) Institutional holders are those investment managers having a fair market value of equity assets under management of \$100 million or more. Certain banks, insurance companies, investment advisers, investment companies, foundations and pension funds are included in this category.
- (3) Based on average turnover (shares traded) over the past five years.



Bond and Credit Ratings for  
Palmetto Utilities, Inc. and  
The Water Group Followed by Analysts

	<u>S&amp;P Credit Rating</u>
Palmetto Utilities, Inc.	<u>NA</u>
<u>Water Group Followed by Analysts</u>	
American States Water Co	A+
American Water Works Co Inc	A
Aqua America Inc	A
California Water Service Gp *	A+
Middlesex Water Co	A
SJW Corp	A-
York Water Co	A-
Average	<u>A</u>

\* - The A+ bond rating is that for California Water Service, Inc.

Comparison of Credit Measures of Financial Risk  
Palmetto Utilities, Inc. and  
For the Water Group Followed by Analysts(1)

	Spot in Credit Measures of Financial Risk (For the Year 2018)			Trend in Credit Measures of Financial Risk (Five-Year Average 2014-18)		
	Credit Implication	Subject Company	Water Group Followed by Analysts	Credit Implication	Subject Company	Water Group Followed by Analysts
1. <u>Base Credit Metrics</u>						
2. PreTax Interest Coverage(2)(x)	Lower	1.4x	3.6x	Lower	3.1x	4.3x
3. Total Debt/Total Capital(%)	Lower	74.2%	48.4%	Lower	72.8%	48.1%
4. GCF / Interest Coverage(3)(x)	Lower	2.8x	4.9x	Lower	4.2x	5.7x
5. GCF / Average Total Debt(4)(%)	Lower	9.1%	18.7%	Lower	15.5%	23.5%
6. NCF / Construction(5)(%)	Higher	248.2%	46.8%	Higher	181.2%	70.7%
7. Construction / Average Total Capital(6)(%)	Higher	2.7%	13.0%	Lower	19.7%	12.0%
8. <u>Standard &amp; Poor's Credit Metrics</u>						
9. Funds from Operation / Average Total Debt(7)(%)	Lower	9.1%	20.7%	Lower	15.5%	23.8%
10. Average Total Debt / EBITDA(8)(x)	Lower	7.1x	3.7x	Lower	4.6x	3.4x
11. FFO / Interest Coverage(9)(x)	Lower	2.8x	5.3x	Lower	4.2x	5.8x
12. EBITDA / Interest(10)(x)	Lower	2.8x	5.7x	Lower	4.8x	6.1x
13. CFO / Average Total Debt(11)(%)	Lower	14.2%	21.5%	Lower	23.4%	24.1%
14. FOCF / Average Total Debt(12)(%)	Higher	10.5%	-5.6%	Lower	-3.7%	-1.1%
15. DCF / Average Total Debt(13)(%)	Higher	10.5%	-12.2%	Higher	-3.7%	-7.8%
16. <u>Moody's Credit Metrics</u>						
17. Cash Flow Interest Coverage(3) (x)	Lower	2.8x	4.9x	Lower	4.2x	5.7x
18. Cash Flow / Average Total Debt(4)(%)	Lower	9.1%	18.7%	Lower	15.5%	23.5%
19. Retained Cash Flow / Average Total Debt(14)(%)	Lower	9.0%	12.1%	Lower	15.2%	16.8%
20. Average Total Debt / Average Adjusted Total Capital(15)(%)	Lower	70.8%	43.0%	Lower	70.9%	40.2%
21. <u>Capital Credit Metrics</u>						
22. <u>Standard &amp; Poor's Credit Metrics - Adjusted to Total Capital</u>						
23. Funds from Operation / Average Total Capital(16)(%)	Lower	6.8%	9.9%	Higher	11.3%	11.2%
24. Average Total Capital / EBITDA(17)(x)	Lower	9.5x	7.7x	Higher	6.3x	7.0x
25. CFO / Average Total Capital(18)(%)	Higher	10.6%	10.2%	Higher	17.0%	11.3%
26. FOCF / Average Total Capital(19)(%)	Higher	7.8%	-2.7%	Lower	-2.7%	-0.7%
27. DCF / Average Total Capital(20)(%)	Higher	7.8%	-5.8%	Higher	-2.7%	-3.8%
28. <u>Moody's Credit Metrics - Adjusted to Total Capital</u>						
29. Cash Flow / Average Total Capital(21)(%)	Lower	6.8%	8.9%	Higher	11.3%	11.1%
30. Retained Cash Flow / Average Total Capital(22)(%)	Higher	6.8%	5.8%	Higher	11.3%	8.0%

See the next page for notes.

Comparison of Credit Market Financial Risk Metrics  
For Palmetto Utilities, Inc. and  
The Water Group Followed by Analysts  
2014 - 2018

Notes:

- (1) Average of the achieved results for each individual company based upon the financials as originally reported.
- (2) Represents the number of times available pretax earnings ("EBIT"), excluding AFC, cover all interest charges.
- (3) GCF or gross cash flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less AFC), plus interest charges, divided by interest charges.
- (4) GCF (see note 3) as a percentage of average total debt.
- (5) The percent of GCF (see note 3) less all cash dividends which cover gross construction expenditures.
- (6) Construction expenditures as a percentage of average total capital.
- (7) Funds from operations ("FFO"), revenue minus operating expenses, plus depreciation and amortization expenses ("EBITDA") less net interest expense less current tax expense, as a percentage of average total debt.
- (8) Average total debt divided by EBITDA (see note 7).
- (9) FFO (see note 7) plus interest charges, divided by interest charges.
- (10) EBITDA (see note 7) divided by interest charges.
- (11) Cash flow from operations ("CFO"), GCF (see note 3) plus changes in operating assets and liabilities (working capital), as a percentage of average total debt.
- (12) Free operating cash flow ("FOCF"), CFO (see note 11) minus capital expenditures, as a percentage of average total debt.
- (13) Discretionary cash flow ("DCF"), FOCF (see note 12) minus cash dividends as a percentage of average total debt.
- (14) The percent of GCF (see note 3) less all cash dividends as a percentage of average total debt.
- (15) Average total debt divided by average of total capital plus deferred taxes (balance sheet).
- (16) Funds from operations ("FFO"), revenue minus operating expenses, plus depreciation and amortization expenses ("EBITDA") less net interest expense less current tax expense, as a percentage of average total capital.
- (17) Average total capital divided by EBITDA (see note 7).
- (18) Cash flow from operations ("CFO"), GCF (see note 3) plus changes in operating assets and liabilities (working capital), as a percentage of average total capital.
- (19) Free operating cash flow ("FOCF"), CFO (see note 11) minus capital expenditures, as a percentage of average total capital.
- (20) Discretionary cash flow ("DCF"), FOCF (see note 12) minus cash dividends as a percentage of average total capital.
- (21) GCF (see note 3) as a percentage of average total capital.
- (22) The percent of GCF (see note 3) less all cash dividends as a percentage of average total capital.

Source of Information: Standard & Poor's, Moody's and Annual Reports

Distribution of Bond and Credit Ratings for  
All Companies Contained in S&P's *Compustat* Database (1)

Number of Companies In Each Grouping	S&P Bond and Credit Ratings				Range of Reported Permanent Capital By Groupings (Million \$)		
	Average	Median	Maximum	Minimum	Smallest	Median	Largest
100	B	B	A	Default	-2,813.000	481.268	659.429
100	BB-	BB-	AA-	CCC	666.479	845.776	1,064.303
100	BB-	BB-	A+	CCC	1,069.648	1,262.592	1,500.252
100	BB	BB	A-	CC	1,505.676	1,704.365	1,904.804
100	BB+	BB+	A	CCC	1,908.991	2,194.582	2,516.000
100	BB+	BB+	A+	CCC+	2,517.100	2,861.849	3,295.586
100	BB+	BB+	A+	CC	3,300.651	3,596.752	3,996.000
100	BBB-	BBB-	A+	B-	4,000.800	4,450.659	5,004.700
100	BBB-	BBB-	AA	CCC+	5,019.600	5,663.956	6,323.582
100	BBB-	BBB-	A+	B	6,325.000	6,984.000	7,867.057
100	BBB	BBB	AA-	Default	7,885.887	8,957.652	10,529.894
100	BBB	BBB	A+	Default	10,608.073	12,166.560	13,998.000
100	BBB	BBB	A+	CCC	14,025.354	16,263.500	18,976.100
100	BBB+	BBB+	AA+	B	18,977.000	22,870.770	27,540.000
100	BBB+	A-	AA+	BB-	27,545.000	37,567.385	61,000.000
100	A-	A-	AAA	B	61,394.000	94,340.963	327,780.000
8	A-	A-	AA	BBB	350,339.000	429,595.500	538,546.000
Total	1,608						

Number of Companies In Each Grouping	Range of Reported Permanent Capital By Groupings (Million \$)			Distribution of S&P Bond and Credit Ratings By Size Grouping								
	Smallest	Median	Largest	AAA	AA	A	BBB	BB	B	CCC	CC	Default
100	-2,813.000	481.268	659.429	0%	0%	4%	6%	16%	57%	16%	0%	1%
100	666.479	845.776	1,064.303	0%	1%	4%	11%	43%	36%	5%	0%	0%
100	1,069.648	1,262.592	1,500.252	0%	0%	4%	11%	40%	39%	6%	0%	0%
100	1,505.676	1,704.365	1,904.804	0%	0%	5%	21%	48%	23%	2%	1%	0%
100	1,908.991	2,194.582	2,516.000	0%	0%	5%	35%	37%	20%	3%	0%	0%
100	2,517.100	2,861.849	3,295.586	0%	0%	13%	32%	41%	12%	2%	0%	0%
100	3,300.651	3,596.752	3,996.000	0%	0%	11%	39%	33%	15%	1%	1%	0%
100	4,000.800	4,450.659	5,004.700	0%	0%	11%	47%	37%	5%	0%	0%	0%
100	5,019.600	5,663.956	6,323.582	0%	2%	16%	34%	33%	13%	2%	0%	0%
100	6,325.000	6,984.000	7,867.057	0%	0%	15%	48%	29%	8%	0%	0%	0%
100	7,885.887	8,957.652	10,529.894	0%	2%	23%	50%	19%	7%	0%	0%	1%
100	10,608.073	12,166.560	13,998.000	0%	0%	24%	57%	13%	3%	1%	0%	2%
100	14,025.354	16,263.500	18,976.100	0%	0%	28%	51%	14%	6%	1%	0%	0%
100	18,977.000	22,870.770	27,540.000	0%	2%	35%	45%	15%	3%	0%	0%	0%
100	27,545.000	37,567.385	61,000.000	0%	9%	44%	37%	10%	0%	0%	0%	0%
100	61,394.000	94,340.963	327,780.000	2%	21%	38%	35%	3%	1%	0%	0%	0%
8	350,339.000	429,595.500	538,546.000	0%	13%	63%	25%	0%	0%	0%	0%	0%
1,608												

Note: (1) Includes all companies contained in S&P's *Compustat* North American Database that have a S&P bond or credit ratings and reported permanent capital for the year 2018 (as of 8/8/19). Companies were sorted based on amount of reported permanent capital and then separated into groups of 100 companies from smallest to largest.

Interest Rate Trends for  
Investor-Owned Public Utility Bonds  
Yearly for 2014-2018, Monthly for the Years 2019 and 2020

<u>Years</u>	<u>Aaa Rated</u>	<u>Aa Rated</u>	<u>A Rated</u>	<u>Baa Rated</u>
2014	NA	4.18	4.28	4.80
2015	NA	4.00	4.12	5.03
2016	NA	3.73	3.93	4.68
2017	NA	3.82	4.00	4.38
2018	NA	4.09	4.25	4.67
Average	NA	3.96	4.11	4.71
Jan 2019	NA	4.18	4.35	4.91
Feb 2019	NA	4.05	4.25	4.76
Mar 2019	NA	3.98	4.16	4.65
Apr 2019	NA	3.91	4.08	4.55
May 2019	NA	3.84	3.98	4.47
Jun 2019	NA	3.65	3.82	4.31
Jul 2019	NA	3.53	3.69	4.13
Aug 2019	NA	3.17	3.29	3.63
Sep 2019	NA	3.24	3.37	3.71
Oct 2019	NA	3.24	3.39	3.72
Nov 2019	NA	3.25	3.43	3.76
Dec 2019	NA	3.22	3.40	3.73
Avg 2019	NA	3.61	3.77	4.19
Jan 2020 <i>E</i>	NA	3.12	3.29	3.60

Source of Information: MERGENT BOND RECORD

Credit Risk Spreads of  
Investor-Owned Public Utility Bonds  
Yearly for 2014-2018, Monthly for the Years 2019 and 2020

<u>Years</u>		Aa Over <u>Aaa</u>	A Over <u>Aa</u>	Baa Over <u>A</u>	Baa Over <u>Aaa</u>
2014		NA	0.10	0.52	NA
2015		NA	0.12	0.91	NA
2016		NA	0.20	0.74	NA
2017		NA	0.18	0.38	NA
2018		NA	0.16	0.42	NA
Average		NA	0.15	0.60	NA
Jan	2019	NA	0.17	0.56	NA
Feb	2019	NA	0.20	0.51	NA
Mar	2019	NA	0.18	0.49	NA
Apr	2019	NA	0.17	0.47	NA
May	2019	NA	0.14	0.49	NA
Jun	2019	NA	0.17	0.49	NA
Jul	2019	NA	0.16	0.44	NA
Aug	2019	NA	0.12	0.34	NA
Sep	2019	NA	0.13	0.34	NA
Oct	2019	NA	0.15	0.33	NA
Nov	2019	NA	0.18	0.33	NA
Dec	2019	NA	0.18	0.33	NA
Avg	2019	NA	0.16	0.42	NA
Jan	2020 <i>E</i>	NA	0.17	0.31	NA

Source of Information: MERGENT BOND RECORD

Interest Rate Trends  
Of Long-Term Treasury Constant  
Yearly for 2014-2018, Monthly for the Years 2019 and 2020

<u>Years</u>	<u>10-Year T-Bond</u>	<u>20-Year T-Bond</u>	<u>30-Year T-Bond</u>	<u>Long-term T-Bond Yield</u>
2014	2.54	3.07	3.34	2.98
2015	2.14	2.55	2.84	2.51
2016	1.84	2.23	2.60	2.22
2017	2.33	2.65	2.90	2.63
2018	2.91	3.02	3.11	3.02
Average	2.35	2.70	2.96	2.67
Jan 2019	2.71	2.89	3.04	2.97
Feb 2019	2.68	2.87	3.02	2.95
Mar 2019	2.57	2.80	2.98	2.89
Apr 2019	2.53	2.76	2.94	2.85
May 2019	2.40	2.63	2.82	2.73
Jun 2019	2.07	2.36	2.57	2.47
Jul 2019	2.06	2.36	2.57	2.47
Aug 2019	1.63	1.91	2.12	2.02
Sep 2019	1.70	1.97	2.16	2.07
Oct 2019	1.71	2.00	2.19	2.10
Nov 2019	1.81	2.13	2.28	2.21
Dec 2019	1.86	2.16	2.30	2.23
Avg 2019	2.14	2.40	2.58	2.49
Jan 2020	1.76	2.07	2.22	2.15

Source of Information: Federal Reserve Bulletin

Spread in Average Long-Term Bond Yields  
Versus Public Utility Bond Yields  
Yearly for 2014-2018, Monthly for the Years 2019 and 2020

<u>Spread in Average Long-Term T-Bond Yields Versus Public Utility Bonds:</u>					
	<u>Years</u>	<u>Aaa Rated</u>	<u>Aa Rated</u>	<u>A Rated</u>	<u>Baa Rated</u>
	2014	NA	1.19	1.29	1.82
	2015	NA	1.49	1.61	2.52
	2016	NA	1.51	1.71	2.45
	2017	NA	1.19	1.37	1.75
	2018	NA	1.07	1.23	1.65
	Average	NA	1.29	1.44	2.04
Jan	2019	NA	1.22	1.39	1.95
Feb	2019	NA	1.11	1.31	1.82
Mar	2019	NA	1.09	1.27	1.76
Apr	2019	NA	1.06	1.23	1.70
May	2019	NA	1.12	1.26	1.75
Jun	2019	NA	1.19	1.36	1.85
Jul	2019	NA	1.07	1.23	1.67
Aug	2019	NA	1.16	1.28	1.62
Sep	2019	NA	1.18	1.31	1.65
Oct	2019	NA	1.15	1.30	1.63
Nov	2019	NA	1.05	1.23	1.56
Dec	2019	NA	0.99	1.17	1.50
Avg	2019	NA	1.12	1.28	1.71
Jan	2020 <i>E</i>	NA	0.98	1.15	1.46

Comment: Derived from the information on pages 1 and 3 of this Schedule.



Interest Rate Trends for  
Federal Funds Rate and Prime Rate  
Yearly for 2014-2018, Monthly for the Years 2019 and 2020

<u>Years</u>		<u>Fed Funds Rate</u>	<u>Prime Rate</u>
2014		0.09	3.25
2015		0.13	3.26
2016		0.40	3.51
2017		1.00	4.10
2018		1.83	4.90
Average		0.69	3.80
Jan	2019	2.40	5.50
Feb	2019	2.40	5.50
Mar	2019	2.41	5.50
Apr	2019	2.42	5.50
May	2019	2.39	5.50
Jun	2019	2.38	5.50
Jul	2019	2.40	5.50
Aug	2019	2.13	5.25
Sep	2019	2.04	5.15
Oct	2019	1.83	4.99
Nov	2019	1.55	4.75
Dec	2019	1.55	4.75
Avg	2019	2.16	5.28
Jan	2020	1.55	4.75

Source of Information: Federal Reserve Bulletin

Blue Chip Financial Forecasts - February 1, 2020

	First Quarter <u>2020</u>	Second Quarter <u>2020</u>	Third Quarter <u>2020</u>	Fourth Quarter <u>2020</u>	First Quarter <u>2021</u>	Five Quarter <u>Average</u>
<u>Prime Rate</u>						
Top Ten Average	4.8 %	4.8 %	4.8 %	4.8 %	4.9 %	4.8 %
Group Average	4.8	4.7	4.7	4.6	4.6	4.7
Bottom Ten Average	4.7	4.5	4.4	4.3	4.2	4.4
<u>Three-Month Treasury Bills</u>						
Top Ten Average	1.6	1.6	1.7	1.7	1.8	1.7
Group Average	1.6	1.5	1.5	1.5	1.5	1.5
Bottom Ten Average	1.5	1.4	1.2	1.1	1.1	1.3
<u>Ten Year Treasury Notes</u>						
Top Ten Average	2.0	2.1	2.2	2.4	2.5	2.2
Group Average	1.8	1.8	1.9	2.0	2.0	1.9
Bottom Ten Average	1.7	1.6	1.6	1.6	1.6	1.6
<u>Thirty Year Treasury Bonds</u>						
Top Ten Average	2.4	2.6	2.7	2.8	2.9	2.7
Group Average	2.3	2.3	2.4	2.4	2.5	2.4
Bottom Ten Average	2.1	2.1	2.1	2.1	2.1	2.1
<u>Aaa-Rated Corporate Bonds</u>						
Top Ten Average	3.3	3.5	3.7	3.8	3.9	3.6
Group Average	3.1	3.3	3.4	3.5	3.5	3.3
Bottom Ten Average	3.0	3.1	3.1	3.1	3.1	3.1
<u>Baa-Rated Corporate Bonds</u>						
Top Ten Average	5.1	5.1	5.1	5.1	5.1	5.1
Group Average	4.0	4.1	4.2	4.3	4.4	4.2
Bottom Ten Average	4.6	4.6	4.6	4.6	4.6	4.6

Derived Public Utility Bond Yield Forecasts Based on Aaa and Baa Corporate Yields

Aa-Rated Public Utility Bonds

Top Ten Average	3.9	4.0	4.1	4.2	4.2	4.1
Group Average	3.3	3.4	3.5	3.6	3.7	3.5
Bottom Ten Average	3.5	3.6	3.6	3.6	3.6	3.6

A-Rated Public Utility Bonds

Top Ten Average	4.1	4.2	4.3	4.4	4.4	4.3
Group Average	3.5	3.6	3.7	3.8	3.8	3.7
Bottom Ten Average	3.7	3.7	3.7	3.8	3.8	3.7

Baa-Rated Public Utility Bonds

Top Ten Average	4.5	4.6	4.7	4.8	4.8	4.7
Group Average	3.9	4.0	4.1	4.2	4.3	4.1
Bottom Ten Average	4.1	4.1	4.2	4.2	4.2	4.2

Settled Yields on Treasury Bond  
Future Contracts  
Traded on the Chicago Board of Trade  
at the Close of February 27, 2020

<u>Delivery Date</u>	<u>Treasury Bonds (CBOT)</u>	
Mar-20	2.668	%
Jun-20	2.703	
Sep-20	2.738	
Average	<u>2.703</u>	%

Source of Information: Chicago Board of Trade

Market Value Discounted Cash Flow for  
The Water Group Followed by Analysts

	Water Group Followed by <u>Analysts</u>
Dividend Yield(1)	1.7 %
Growth in Dividends(2)	<u>0.1</u>
Adjusted Dividend Yield	1.8
Stock Appreciation(3)	<u>7.4</u>
Market Value DCF Cost Rate	<u><u>9.2 %</u></u>

Notes: (1) Developed on page 2 of this Schedule.

(2) Equal to one-half the assumed growth in value.

(3) As explained in the direct testimony, the growth in value  
is supported by the information shown on Schedules 13 and 14.

Market Value Dividend Yield for  
the Water Group Followed by Analysts  
For the Twelve Months Ended January 2020

	Recent Dividend <u>Yields(1)</u>	Longer Term Dividend <u>Yields(2)</u>	<u>Average Yields</u>
<u>Water Group Followed by Analysts</u>			
American States Water Co	1.4 %	1.5 %	
American Water Works Co Inc	1.6	1.7	
Aqua America Inc	1.9	2.2	
California Water Service Gp	1.5	1.5	
Middlesex Water Co	1.6	1.6	
SJW Corp	1.7	1.8	
York Water Co	<u>1.5</u>	<u>1.8</u>	
Average	<u>1.6 %</u>	<u>1.7 %</u>	<u>1.7 %</u>

Notes: (1) Average of the high and the low dividend yield for the month of January 2020.

(2) Average of the high and the low dividend yield for each of the twelve months ended January 2020.

Source of Information: S&P Capital IQ

Development of Long Term Projected Growth in Value  
Based Upon Growth Over The Next Five Years  
For the Water Group Followed by Analysts

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>
	Analysts' Projected Growth in EPS				Other Projected Growth			
	First Call EPS Growth	S&P EPS Growth	ZACK's EPS Growth	Value Line EPS Growth	Value Line DPS Growth	Value Line Cash Flow Growth	Average EPS Growth	Average All Growth
<u>Water Group Followed by Analysts</u>								
American States Water Co	6.0 %	6.0 %	8.0 %	8.0 %	9.5 %	6.0 %	7.0 %	7.3 %
American Water Works Co Inc	8.2	8.2	8.1	9.5	9.0	7.0	8.5	8.3
Aqua America Inc	6.4	7.5	6.2	8.0	8.0	6.5	7.0	7.1
California Water Service Gp	9.8	NA	NA	8.0	6.5	4.0	8.9	7.1
Middlesex Water Co	2.7	NA	NA	7.5	5.0	6.5	5.1	5.4
SJW Corp	14.0	8.0	4.0	6.0	7.0	2.5	8.0	6.9
York Water Co	4.9	NA	NA	9.5	6.5	9.0	7.2	7.5
Average	<u>7.4 %</u>	<u>7.4 %</u>	<u>6.6 %</u>	<u>8.1 %</u>	<u>7.4 %</u>	<u>5.9 %</u>	<u>7.4 %</u>	<u>7.1 %</u>

	Historical 5-Year Growth in EPS			
	First Call EPS Growth	ZACK's EPS Growth	Value Line EPS Growth	Average EPS Growth
<u>Water Group Followed by Analysts</u>				
American States Water Co	5.5 %	5.9 %	4.5 %	5.3 %
American Water Works Co Inc	8.7	8.3	6.5	7.8
Aqua America Inc	3.9	4.0	5.5	4.5
California Water Service Gp	21.1	4.3	5.5	10.3
Middlesex Water Co	13.5	13.8	11.0	12.8
SJW Corp	-5.8	0.0	18.5	4.2
York Water Co	4.2	5.7	6.5	5.5
Average	<u>7.3 %</u>	<u>6.0 %</u>	<u>8.3 %</u>	<u>7.2 %</u>

Source of Information: Value Line Investment Survey, 1/10/20; S&P Capital IQ 2/27/20;  
FirstCall 2/27/20; and  
Zacks Investment Research 2/27/20

Recent Payout Ratios,  
ROEs, P-E Multiples, Market/Book Multiples, and Market Value  
For the Water Group Followed by Analysts

	Current Dividend <u>Payout</u>	Current Return on <u>Equity</u>	PE <u>Mult</u>	Market to Book <u>Mult</u>	Current Market <u>Value</u> (Mill \$)
<u>Water Group Followed by Analysts</u>					
American States Water Co	51	14.5	38.8	5.42	3,262.489
American Water Works Co Inc	57	10.3	39.7	4.02	24,621.714
Aqua America Inc	87	7.4	49.9	3.11	11,210.770
California Water Service Gp	60	8.4	40.1	3.27	2,530.501
Middlesex Water Co	48	12.7	32.3	3.94	1,137.540
SJW Corp	146	2.6	89.1	2.35	2,087.284
York Water Co	<u>61</u>	<u>11.5</u>	<u>41.7</u>	<u>4.67</u>	<u>615.139</u>
Average	<u>73</u>	<u>9.6</u>	<u>47.4</u>	<u>3.83</u>	<u>6,495.062</u>

Source of Information: S&P Capital IQ

Value Line Projected ROE Based on Year-End and Average,  
Dividend Payout Ratio, and Common Equity Ratio for  
The Water Group Followed by Analysts for 2022 - 2024

	Value Line Projected ROE	Projected Average ROE (1)	Value Line Projected Dividend Payout	Value Line Projected Common Equity Ratio
<u>Water Group Followed by Analysts</u>				
American States Water Co	14.0 %	14.4 %	61.8 %	54.0 %
American Water Works Co Inc	11.5	11.8	58.5	41.0
Aqua America Inc	11.0	11.6	62.5	47.0
California Water Service Gp	12.5	12.7	52.5	60.5
Middlesex Water Co	14.0	14.3	46.9	60.5
SJW Corp	9.5	9.7	41.1	67.5
York Water Co	<u>14.0</u>	<u>14.3</u>	<u>55.9</u>	<u>66.0</u>
Average	<u>12.4</u> %	<u>12.7</u> %	<u>54.2</u> %	<u>56.6</u> %

Notes: (1) Value Line ROE, which is a year-end ROE, is converted to average ROE by the factor derived from the following formula:  $2((1+g)/(2+g))$ , where "g" is the rate of growth in common equity.

Source of Information: Value Line Investment Survey, 1/10/20



Illustration of the  
Effect of Market-To-Book Ratio on Market Return

<u>Ln #</u>	<u>Situation 1</u>	<u>Situation 2</u>	<u>Situation 3</u>
1 M/B Ratio	50%	100%	200%
2 Market Purchase Price	\$25.00	\$50.00	\$100.00
3 Book Value	\$50.00	\$50.00	\$50.00
4 DCF Return	10.0%	10.0%	10.0%
5 DCF Dollar Return	\$5.00	\$5.00	\$5.00
6 Dividend Yield	5.0%	5.0%	5.0%
7 DPS	\$1.25	\$2.50	\$5.00
8 Dollar Growth in Value	\$3.75	\$2.50	\$0.00
9 Market Sale Price	\$28.75	\$52.50	\$100.00
10 Total Market Return	20.0%	10.0%	5.0%

"The simple numerical illustration....demonstrates the impact of market-to-book ratios on the DCF market return....The DCF cost rate of 10%, made up of a 5% dividend yield and a 5% growth rate, is applied to the book value rate base of \$50 to produce \$5.00 of earnings. Of the \$5.00 of earnings, the full \$5.00 are required for dividends to produce a dividend yield of 5.0% on a stock price of \$100.00, and no dollars are available for growth. The investor's return is therefore only 5% versus his required return of 10%. A DCF cost rate of 10%, which implies \$10.00 of earnings, translates to only \$5.00 of earnings on book value, or a 5% return.....Therefore, the DCF cost rate understates the investor's required return when stock prices are well above book, as is the case presently."

The above illustration is taken from Roger A Morin, Regulatory Finance - Utilities' Cost of Capital, Public Utility Reports, Inc., 1994, pp. 236-237.

Differences in Book Value and Market Values for the  
Water Group Followed by Analysts

	Recent Book Value Capitalization Ratios (9/30/19)	Recent Market Value Capitalization Ratios	Average Book Value of Common Equity (Millions)	Average Market Value of Common Equity (Millions)	Difference in Market Value and Book Value Common Equity
<u>Water Group Followed by Analysts:</u>					
Long Term Debt	46.7 %	19.6 %			
Preferred Stock	0.1	0.0			
Common Equity	<u>53.2</u>	<u>80.4</u>	<u>\$1,815.796</u>	<u>\$6,495.062</u>	<u>\$4,679.266</u>
Total	<u>100.0 %</u>	<u>100.0 %</u>			

Financial Risk Adjustment Using the "Hamada Model"

Water Group Followed by Analysts

Line No.	<u>Market Value @ (9/30/19)</u>				
	<u>DEBT</u> (D)	<u>PREF</u> (P)	<u>CE</u> (E)	<u>TAX</u> (t)	<u>BETA</u> (Bl)
1 .					
2 .	19.6%	0.0%	80.4%	28.000%	0.66
3 .	Bl = Bu (1+(1-t)D/E+P/E)				
4 .	1-t =	0.7200			
5 .	D/E =	0.2438			
6 .	P/E =	0.0000			
7 .	Bl =	Bu *	1.1755		
8 .	Bu =	0.56			

Water Group Followed by Analysts

	<u>Book Value @ (9/30/19)</u>			
	<u>DEBT</u> (D)	<u>PREF</u> (P)	<u>CE</u> (E)	<u>TAX</u> (t)
9 .				
10 .				
11 .	46.70%	0.10%	53.20%	28.000%
12 .	Bl = Bu (1+(1-t)D/E+P/E)			
13 .	1-t =	0.7200		
14 .	D/E =	0.8778		
15 .	P/E =	0.0019		
16 .	Bl =	Bu *	1.6339	
17 .	Bl =	0.92		

Cost Adjustment Based on Risk Premium

18 .	Barometer Group's Beta	=	<u>0.66</u>
19 .	Beta difference	=	0.26
20 .	Risk premium	=	<u>5.9</u>
21 .	Risk adjustment	=	<u>1.53</u>

Default Spread for  
Aaa Rated Corporate Bonds and A Rated Investor-Owned Public Utility Bonds  
Yearly for 2014-2018, Monthly for the Years 2019 and 2020

<u>Years</u>		<u>Corporate Aaa Rated</u>	<u>Public Utility A Rated</u>	<u>A Over Aaa</u>
2014		4.16	4.28	0.11
2015		3.89	4.12	0.23
2016		3.67	3.93	0.27
2017		3.74	4.00	0.25
2018		3.93	4.25	0.32
Average		3.88	4.11	0.24
Jan	2019	3.93	4.35	0.42
Feb	2019	3.79	4.25	0.46
Mar	2019	3.77	4.16	0.39
Apr	2019	3.69	4.08	0.39
May	2019	3.67	3.98	0.31
Jun	2019	3.42	3.82	0.40
Jul	2019	3.29	3.69	0.40
Aug	2019	2.98	3.29	0.31
Sep	2019	3.03	3.37	0.34
Oct	2019	3.01	3.39	0.38
Nov	2019	3.06	3.43	0.37
Dec	2019	3.01	3.40	0.39
Avg	2019	3.39	3.77	0.38
Jan	2020 <i>E</i>	2.94	3.29	0.35

Source of Information: MERGENT BOND RECORD

Market Value CAPM for  
The Water Group Followed by Analysts

Water Group  
Followed by  
Analysts

Estimation Based Upon Historical Information

Market Premium(1)	6.9 %
x Beta(2)	<u>0.66</u>
Risk Adjusted Market Premium	4.6
Size Adjustment Premium(2)	0.8
Plus Risk Free Rate(1)	<u>2.4</u>
Market Value CAPM Cost Rate	<u><u>7.8 %</u></u>

Estimation Based Upon Projected Information

Market Premium(1)	9.1 %
x Beta(2)	<u>0.66</u>
Risk Adjusted Market Premium	6.0
Size Adjustment Premium(2)	0.8
Plus Risk Free Rate(1)	<u>2.4</u>
Market Value CAPM Cost Rate	<u><u>9.2 %</u></u>

Market Value CAPM is: 8.9%
----------------------------

Notes: (1) Developed on page 2 of this Schedule.  
(2) Developed on page 4 of this Schedule.

Development of Market Premiums for Use in a CAPM Model

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>
Value Line Summary & Index Month End Edition	Forecasted Market Dividend Yield	Stock Price Appreciation Next 3-5 Years	Annual Price Appreciation(1)	Annual Total Return(1)	Midpoint Market Return(2)	Average Market Return(3)	CAPM Projected Market Return(6)
November-19	2.2 %	45 %	9.7 %	11.9 %			
December-29	2.1	45	9.7	11.8			
January-20	2.1	40	8.8	10.9			
					<u>11.4</u> %	<u>11.5</u> %	11.5 %
					Less Risk Free Rate(4)		<u>2.4</u>
					Estimated Market Premium Based Upon Projected Information (1)		<u>9.1</u> %
					Estimated Market Premium Based Upon Historical Information (5)		<u>6.9</u> %

See next page of this Schedule for Notes.

CAPM  
The Water Group Followed by Analysts

- Notes: (1) A projected market premium is based upon the projected market return rate derived from the Value Line Summary and Index for the various dates shown. For example, Value Line projects (Jan-20) that the market will appreciate in price 40% over the next three to five years. Using a four-year midpoint estimate, Value Line's appreciation potential equates to 8.8% annually ( $[1.40]^{.25}$ ). Additionally, Value Line estimates the market will have a dividend yield of 2.1%. Combining the market dividend yield of 2.1% with the market appreciation results in a projected market return rate of 10.9% ( $8.8\% + 2.1\%$ ).
- (2) Mid point of the month-end total market returns in Column E.
- (3) Average total market return in Column E.
- (4) As discussed in the direct testimony, the risk-free rate is 2.4%.
- (5) The historical market premium is based upon studies conducted by Ibbotson Associates concerning asset returns. Ibbotson Associates' asset return studies are the most noted asset return rate studies available today. The results are widely disseminated throughout the investment public. Ibbotson Associates' long-term common stock total market return is 11.88% which, when reduced by the long-term historic risk-free rate of 4.97% results in a market premium of 6.9% ( $11.88\% - 4.97\%$ ).

Recent Market Values and  
Beta Adjusted Ibbotson Associates Size Premiums For  
The Water Group Followed by Analysts

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
	Recent Market Value (Mill \$)	Market Quartile Name	Market Quartile	Quartile Size Premium	Quartile Beta	Value Line Beta	Beta Ratio	Beta Adjusted Quartile Size Premium
<u>Water Group Followed by Analysts</u>								
American States Water Co	\$3,262.489	Mid-Cap	2	0.89	1.12	0.65	58%	0.5
American Water Works Co Inc	24,621.714	Large-Cap	1	0.00	1.00	0.55	55%	0.0
Aqua America Inc	11,210.770	Mid-Cap	2	0.89	1.12	0.65	58%	0.5
California Water Service Gp	2,530.501	Low-Cap	3	1.60	1.22	0.70	57%	0.9
Middlesex Water Co	1,137.540	Low-Cap	3	1.60	1.22	0.75	61%	1.0
SJW Corp	2,087.284	Low-Cap	3	1.60	1.22	0.60	49%	0.8
York Water Co	615.139	<u>Mico-Cap</u>	<u>4</u>	<u>3.40</u>	<u>1.35</u>	<u>0.70</u>	<u>52%</u>	<u>1.8</u>
Average		<u>Low-Cap</u>	<u>3</u>	<u>1.60</u>	<u>1.22</u>	<u>0.66</u>	<u>56%</u>	<u>0.8</u>

Source of Information: 2019 SBBI Yearbook, Stocks, Bonds, Bills, and Inflation, and Value Line



Market Value Risk Premium  
For the Water Group Followed by Analysts

	Water Group Followed by <u>Analysts</u>	
Prospective Public Utility Bond Yields(1)	3.6	%
Estimated Risk Premium(2)	<u>5.9</u>	
Market Value Risk Premium Indicated Cost Rate	<u><u>9.5</u></u>	%

- Notes: (1) Based upon the current and prospective long-term debt cost rates, it is reasonable to expect that if the comparable group (i.e., Water Group) issued new long-term bonds, it would both be priced to yield about 3.6% based upon credit profiles of A for the Water Group.
- (2) A 5.9% risk premium is concluded for the Group after reviewing the tabulation of risk spreads shown on pages 2, 3, 4 and 5 of this Schedule.

Development of the Projected Risk Premium

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>
Value Line Summary & Index Month End Edition	Forecasted Market Dividend Yield	Stock Price Appreciation Next 3-5 Years	Annual Price Appreciation	Forecasted Annual Total Return	Less: Yield of Moody's A Rated Industrial Bonds	Forecasted Equity Premium	Estimated Risk Adjustment	Forecasted Risk Premium
November-19	2.2 %	45 %	9.7 %	11.9 %	3.37 %	8.5 %	85 %	7.3 %
December-29	2.1	45	9.7	11.8	3.32	8.5	85	7.2
January-20	2.1	40	8.8	10.9	3.24	7.7	85	6.5
		Midpoint of data		11.4		8.1		6.9 %
		Quarter's Average		11.5		8.2		7.0 %

Annual Total Returns and Risk Premiums of  
S&P Public Utility Stocks and Bonds  
for the Years 1999-2018, 1989-2018, 1979-2018, 1969-2018, 1959-2018, 1949-2018 and 1928-2018

Annual Total Returns								
Periods	Public Utility Stock	L-Term T-Bonds	Public Utility Bonds					
			AAA	AAA & AA	AA	A	BBB	
Average Annual Rates of Return								
1999 to 2018	0.1040	0.0646	0.0339	0.0788	0.0794	0.0773	0.0818	
1989 to 2018	0.1212	0.0858	0.1033	0.0914	0.0918	0.0907	0.0954	
1979 to 2018	0.1383	0.0947	0.1130	0.1000	0.1009	0.1009	0.1063	
1969 to 2018	0.1216	0.0839	0.0950	0.0911	0.0920	0.0929	0.0984	
1959 to 2018	0.1179	0.0724	0.0766	0.0784	0.0792	0.0804	0.0853	
1949 to 2018	0.1247	0.0625	0.0639	0.0687	0.0694	0.0706	0.0754	
1928 to 2018	0.1103	0.0563	0.0594	0.0644	0.0654	0.0677	0.0742	
Average Risk Premiums								
1999 to 2018		0.0394	0.0701	0.0252	0.0246	0.0267	0.0222	
1989 to 2018		0.0353	0.0179	0.0298	0.0293	0.0305	0.0257	
1979 to 2018		0.0436	0.0253	0.0382	0.0373	0.0374	0.0320	
1969 to 2018		0.0455	0.0412	0.0394	0.0387	0.0375	0.0325	
1959 to 2018		0.0455	0.0412	0.0394	0.0387	0.0375	0.0325	
1949 to 2018		0.0622	0.0608	0.0560	0.0553	0.0541	0.0493	
1928 to 2018		0.0540	0.0509	0.0459	0.0449	0.0426	0.0361	

Annual Total Returns, Annual Income Returns and Risk Premiums of  
S&P Public Utility Stocks and Bonds  
for the Years 1999-2018, 1989-2018, 1979-2018, 1969-2018, 1959-2018, 1949-2018 and 1928-2018

			Annual Income Returns						
			Annual Total Returns Public Utility Stock	L-Term T-Bonds	Public Utility Bonds				
					AAA	AAA & AA	AA	A	BBB
Periods			Average Rates of Return						
1999	to	2018	0.1040	0.0415	0.0749	0.0552	0.0553	0.0569	0.0617
1989	to	2018	0.1212	0.0521	0.0794	0.0641	0.0643	0.0660	0.0701
1979	to	2018	0.1383	0.0658	0.0953	0.0774	0.0779	0.0801	0.0847
1969	to	2018	0.1216	0.0672	0.0910	0.0783	0.0790	0.0813	0.0857
1959	to	2018	0.1179	0.0632	0.0809	0.0733	0.0738	0.0760	0.0800
1949	to	2018	0.1247	0.0582	0.0716	0.0674	0.0679	0.0700	0.0738
1928	to	2018	0.1103	0.0511	0.0609	0.0599	0.0606	0.0632	0.0680
Average Risk Premiums									
1999	to	2018		0.0625	0.0291	0.0488	0.0487	0.0471	0.0423
1989	to	2018		0.0691	0.0417	0.0571	0.0569	0.0551	0.0510
1979	to	2018		0.0724	0.0429	0.0609	0.0604	0.0581	0.0536
1969	to	2018		0.0546	0.0369	0.0446	0.0440	0.0419	0.0378
1959	to	2018		0.0546	0.0369	0.0446	0.0440	0.0419	0.0378
1949	to	2018		0.0665	0.0531	0.0573	0.0568	0.0547	0.0509
1928	to	2018		0.0592	0.0494	0.0504	0.0497	0.0471	0.0423

Annual Total Returns, Annual Income Returns and Risk Premiums of  
S&P Public Utility Stocks and Bonds  
For the 46 Years of the Lowest Interest Rate Environment and the 45 Years of the Highest Interest Rate Environment  
For The Years 1928-2018

Current Interest Rate Environment: 2.4%

<u>Periods</u>	<u>Public Utility Stock</u>	<u>L-Term T-Bonds</u>	<u>Public Utility Bonds</u>				
			<u>AAA</u>	<u>AAA &amp; AA</u>	<u>AA</u>	<u>A</u>	<u>BBB</u>

**Annual Total Returns**

**Low Interest Rate Environment:**

46 Years of the Lowest Interest Rates, Ranging from 2.0% to 4.1% with an Average Rate of 3.0%

Average Rates of Return

0.1104	0.0291	0.0361	0.0452	0.0463	0.0518	0.0630
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Average Risk Premiums

0.0814	0.0744	0.0653	0.0641	0.0586	0.0474
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**High Interest Rate Environment:**

45 Years of the Highest Interest Rates, Ranging from 4.2% to 13.5% with an Average Rate of 7.3%

Average Risk Premiums

0.1102	0.0841	0.0815	0.0840	0.0850	0.0839	0.0857
--------	--------	--------	--------	--------	--------	--------

Average Risk Premiums

0.0261	0.0286	0.0261	0.0252	0.0262	0.0245
--------	--------	--------	--------	--------	--------

**Annual Income Returns**

**Low Interest Rate Environment:**

46 Years of the Lowest Interest Rates, Ranging from 2.0% to 4.1% with an Average Rate of 3.0%

Average Rates of Return

0.1104	0.0296	0.0346	0.0373	0.0380	0.0409	0.0466
--------	--------	--------	--------	--------	--------	--------

Average Risk Premiums

0.0808	0.0758	0.0732	0.0725	0.0696	0.0638
--------	--------	--------	--------	--------	--------

**High Interest Rate Environment:**

45 Years of the Highest Interest Rates, Ranging from 4.2% to 13.5% with an Average Rate of 7.3%

Average Risk Premiums

0.1102	0.0730	0.0858	0.0831	0.0838	0.0860	0.0898
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Average Risk Premiums

0.0372	0.0244	0.0271	0.0264	0.0241	0.0203
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Annual Total Returns							
Years	Public Utility Stocks	L-Term T-Bonds	Public Utility Bonds				
			AAA	AA & A	AA	A	BBB
1928	0.5431	-0.0030	0.0370	0.0388	0.0406	0.0372	0.0392
1929	0.1376	0.0410	0.0209	0.0193	0.0178	0.0163	-0.0076
1930	-0.2149	0.0509	0.0917	0.0892	0.0869	0.0820	0.0378
1931	-0.3193	-0.0782	0.0058	-0.0059	-0.0171	-0.0608	-0.1089
1932	-0.0724	0.1736	0.1073	0.1037	0.1003	0.0685	0.0570
1933	-0.2170	0.0090	0.0142	-0.0145	-0.0401	-0.0686	-0.0601
1934	-0.1743	0.0962	0.1712	0.2000	0.2272	0.3264	0.4593
1935	0.6914	0.0610	0.1053	0.1243	0.1427	0.1760	0.2885
1936	0.2357	0.0691	0.0783	0.0916	0.1046	0.1079	0.1078
1937	-0.3337	-0.0091	0.0290	0.0323	0.0357	0.0272	-0.0626
1938	0.1020	0.0662	0.0720	0.0773	0.0825	0.0884	0.1505
1939	0.1538	0.0692	0.0435	0.0473	0.0510	0.0851	0.0923
1940	-0.1643	0.0910	0.0480	0.0506	0.0532	0.0949	0.1359
1941	-0.3050	0.0234	0.0255	0.0291	0.0327	0.0428	0.0681
1942	0.1079	-0.0735	0.0261	0.0287	0.0313	0.0314	0.0590
1943	0.4750	0.0228	0.0312	0.0346	0.0380	0.0405	0.0564
1944	0.1879	0.0268	0.0343	0.0353	0.0362	0.0303	0.0459
1945	0.5665	0.1075	0.0298	0.0349	0.0383	0.0683	0.0805
1946	-0.0130	-0.0006	0.0233	0.0238	0.0242	0.0267	0.0377
1947	-0.1236	-0.0165	-0.0139	-0.0187	-0.0234	-0.0213	-0.0105
1948	0.0451	0.0202	0.0287	0.0317	0.0347	0.0225	0.0073
1949	0.3074	0.0760	0.0718	0.0746	0.0773	0.0892	0.0757
1950	0.0152	-0.0034	0.0126	0.0131	0.0135	0.0107	0.0233
1951	0.2075	-0.0541	-0.0393	-0.0393	-0.0393	-0.0468	-0.0268
1952	0.1947	0.0101	0.0373	0.0390	0.0407	0.0442	0.0399
1953	0.0918	0.0062	0.0078	0.0063	0.0048	0.0107	0.0037
1954	0.2269	0.0676	0.0668	0.0701	0.0733	0.0745	0.0909
1955	0.1357	-0.0264	-0.0107	-0.0127	-0.0147	-0.0100	0.0146
1956	0.0416	-0.0484	-0.0703	-0.0703	-0.0703	-0.0714	-0.0816
1957	0.0541	0.0472	0.0246	0.0229	0.0213	0.0054	-0.0131
1958	0.3827	-0.0439	-0.0081	-0.0032	0.0017	0.0123	0.0339
1959	0.0958	-0.0320	-0.0231	-0.0234	-0.0237	-0.0120	-0.0102
1960	0.1680	0.1106	0.0764	0.0735	0.0705	0.0791	0.0994
1961	0.3646	0.0135	0.0432	0.0448	0.0464	0.0502	0.0442
1962	-0.0519	0.0650	0.0831	0.0829	0.0828	0.0852	0.0891
1963	0.1261	-0.0022	0.0171	0.0202	0.0232	0.0294	0.0329
1964	0.1685	0.0439	0.0394	0.0391	0.0387	0.0409	0.0396
1965	0.0489	-0.0064	-0.0010	-0.0014	-0.0018	-0.0044	0.0050
1966	-0.0504	0.0085	-0.0501	-0.0509	-0.0518	-0.0602	-0.0990
1967	-0.0216	-0.0650	-0.0525	-0.0539	-0.0553	-0.0592	-0.0271
1968	0.1419	0.0149	0.0268	0.0224	0.0181	0.0286	0.0243
1969	-0.1769	-0.0640	-0.0792	-0.0839	-0.0885	-0.0960	-0.0892
1970	0.1494	0.1537	0.0970	0.0978	0.0987	0.0952	0.0761
1971	0.0050	0.0999	0.1168	0.1241	0.1313	0.1510	0.1681
1972	0.1464	0.0661	0.0912	0.0980	0.1047	0.1103	0.1387
1973	-0.2106	-0.0893	0.0158	0.0138	0.0118	0.0156	0.0150
1974	-0.2135	0.0092	-0.0315	-0.0360	-0.0405	-0.0683	-0.1033
1975	0.4364	0.0465	0.0915	0.0863	0.0813	0.0872	0.0940
1976	0.3245	0.1955	0.1976	0.2017	0.2058	0.2475	0.2806
1977	0.1076	0.0074	0.0459	0.0545	0.0629	0.0683	0.0903
1978	-0.0174	-0.0189	-0.0083	-0.0055	-0.0027	-0.0026	0.0000
1979	0.1221	-0.0289	-0.0424	-0.0509	-0.0590	-0.0655	-0.0823
1980	0.1275	-0.0804	-0.0782	-0.0778	-0.0773	-0.0702	-0.0649
1981	0.1464	0.0472	0.0616	0.0674	0.0730	0.0416	0.0674
1982	0.2292	0.4323	0.3294	0.3750	0.3942	0.3708	0.3808
1983	0.2372	-0.0049	0.0721	0.0691	0.0763	0.1406	0.1347
1984	0.2219	0.1611	0.1770	0.1796	0.1768	0.1783	0.2075
1985	0.3232	0.3143	0.3473	0.3276	0.3259	0.3143	0.3098
1986	0.3575	0.3692	0.2994	0.2720	0.2698	0.2835	0.2933
1987	-0.0544	-0.1013	-0.1132	-0.0637	-0.0566	-0.0435	-0.0505
1988	0.1849	0.1026	0.2027	0.1615	0.1594	0.1643	0.1919
1989	0.4351	0.2176	0.1770	0.1743	0.1715	0.1692	0.1781
1990	0.0069	0.0482	0.0685	0.0689	0.0722	0.0738	0.0728
1991	0.0931	0.1472	0.1813	0.1647	0.1624	0.1715	0.1878
1992	0.1183	0.1093	0.1264	0.1312	0.1324	0.1355	0.1315
1993	0.1661	0.2162	0.1926	0.2126	0.2190	0.1429	0.1590
1994	-0.0825	-0.1075	-0.0802	-0.0656	-0.0657	0.0065	-0.0351
1995	0.3772	0.3268	0.2860	0.3074	0.3089	0.2164	0.2442
1996	0.0550	0.0020	0.0279	0.0211	0.0214	0.0279	0.0415
1997	0.1959	0.1454	0.1181	0.1157	0.1169	0.1238	0.1496
1998	0.1896	0.1786	0.1431	0.0365	0.0289	0.1074	0.0981
1999	-0.0998	-0.1062	-0.0792	-0.0275	-0.0237	-0.0921	-0.0684
2000	0.5475	0.1922	0.1076	0.1150	0.1146	0.1101	0.1196
2001	-0.2877	0.0596	0.0734	0.0788	0.0873	0.0780	0.0534
2002	-0.2934	0.1362		0.1851	0.1851	0.2461	0.1746
2003	0.2509	0.0488		0.1678	0.1678	0.1529	0.2329
2004	0.2763	0.0861		0.1162	0.1162	0.0782	0.0919
2005	0.2151	0.0520		0.0869	0.0869	0.0732	0.0541
2006	0.2323	0.0421		0.0486	0.0486	0.0596	0.0759
2007	0.1434	0.0814		0.0043	0.0043	0.0143	0.0042
2008	-0.3160	0.2953		0.0733	0.0733	0.0132	-0.1109
2009	0.1801	-0.1460		0.1159	0.1159	0.1662	0.3279
2010	0.0795	0.0755		0.0809	0.0809	0.0871	0.0893
2011	0.2051	0.3271		0.2701	0.2701	0.2505	0.2019
2012	0.1272	0.0622		0.0801	0.0801	0.0955	0.1287
2013	0.1363	-0.1592		-0.0850	-0.0850	-0.0758	-0.0494
2014	0.3017	0.2419		0.1577	0.1577	0.1872	0.1333
2015	-0.0629	0.0115		-0.0031	-0.0031	-0.0227	-0.0682
2016	0.1834	-0.0224		0.0443	0.0443	0.0512	0.1625
2017	0.1966	0.0714		0.1224	0.1224	0.1211	0.1505
2018	0.0644	-0.0579		-0.0566	-0.0566	-0.0477	-0.0680

Years	Public Utility Stocks	L-Term T-Bonds	Income Returns				
			Public Utility Bonds				
			AAA	AAA & AA	AA	A	BBB
1928	0.5431	0.0329	0.0451	0.0460	0.0470	0.0499	0.0541
1929	0.1376	0.0361	0.0468	0.0479	0.0490	0.0522	0.0578
1930	-0.2149	0.0332	0.0458	0.0470	0.0482	0.0514	0.0591
1931	-0.3193	0.0338	0.0434	0.0449	0.0463	0.0511	0.0635
1932	-0.0724	0.0350	0.0474	0.0504	0.0535	0.0640	0.0815
1933	-0.2170	0.0315	0.0436	0.0468	0.0499	0.0604	0.0833
1934	-0.1743	0.0306	0.0402	0.0436	0.0471	0.0559	0.0713
1935	0.6914	0.0278	0.0351	0.0376	0.0402	0.0466	0.0544
1936	0.2357	0.0273	0.0324	0.0343	0.0362	0.0415	0.0465
1937	-0.3337	0.0275	0.0320	0.0334	0.0347	0.0395	0.0486
1938	0.1020	0.0263	0.0303	0.0316	0.0329	0.0392	0.0510
1939	0.1538	0.0239	0.0286	0.0296	0.0305	0.0360	0.0448
1940	-0.1643	0.0224	0.0277	0.0285	0.0293	0.0331	0.0410
1941	-0.3050	0.0197	0.0269	0.0276	0.0283	0.0304	0.0366
1942	0.1079	0.0239	0.0272	0.0279	0.0287	0.0305	0.0358
1943	0.4750	0.0246	0.0264	0.0269	0.0273	0.0296	0.0338
1944	0.1879	0.0248	0.0265	0.0268	0.0272	0.0294	0.0333
1945	0.5665	0.0229	0.0256	0.0261	0.0266	0.0285	0.0318
1946	-0.0130	0.0208	0.0250	0.0254	0.0257	0.0268	0.0293
1947	-0.1236	0.0215	0.0257	0.0261	0.0264	0.0273	0.0297
1948	0.0451	0.0240	0.0282	0.0287	0.0292	0.0301	0.0327
1949	0.3074	0.0223	0.0270	0.0274	0.0277	0.0291	0.0324
1950	0.0152	0.0216	0.0262	0.0264	0.0267	0.0276	0.0312
1951	0.2075	0.0244	0.0285	0.0288	0.0291	0.0307	0.0334
1952	0.1947	0.0265	0.0300	0.0303	0.0305	0.0324	0.0351
1953	0.0918	0.0300	0.0325	0.0328	0.0331	0.0347	0.0371
1954	0.2269	0.0266	0.0296	0.0298	0.0301	0.0317	0.0348
1955	0.1357	0.0287	0.0307	0.0309	0.0311	0.0324	0.0341
1956	0.0416	0.0310	0.0335	0.0337	0.0340	0.0357	0.0374
1957	0.0541	0.0355	0.0397	0.0400	0.0403	0.0428	0.0452
1958	0.3827	0.0344	0.0384	0.0386	0.0389	0.0414	0.0447
1959	0.0958	0.0409	0.0445	0.0448	0.0451	0.0470	0.0494
1960	0.1680	0.0409	0.0450	0.0453	0.0455	0.0473	0.0489
1961	0.3646	0.0391	0.0442	0.0445	0.0449	0.0462	0.0476
1962	-0.0519	0.0401	0.0434	0.0437	0.0439	0.0450	0.0466
1963	0.1261	0.0403	0.0427	0.0429	0.0431	0.0437	0.0456
1964	0.1685	0.0419	0.0441	0.0442	0.0443	0.0450	0.0466
1965	0.0489	0.0424	0.0448	0.0450	0.0451	0.0458	0.0475
1966	-0.0504	0.0475	0.0513	0.0515	0.0518	0.0531	0.0552
1967	-0.0216	0.0494	0.0553	0.0556	0.0559	0.0576	0.0605
1968	0.1419	0.0543	0.0621	0.0627	0.0633	0.0651	0.0684
1969	-0.1769	0.0624	0.0706	0.0716	0.0725	0.0743	0.0778
1970	0.1494	0.0692	0.0822	0.0833	0.0844	0.0870	0.0913
1971	0.0050	0.0614	0.0766	0.0777	0.0789	0.0825	0.0868
1972	0.1464	0.0601	0.0744	0.0751	0.0758	0.0778	0.0815
1973	-0.2106	0.0701	0.0762	0.0767	0.0773	0.0789	0.0812
1974	-0.2135	0.0800	0.0849	0.0861	0.0873	0.0899	0.0929
1975	0.4364	0.0817	0.0894	0.0912	0.0929	0.0978	0.1057
1976	0.3245	0.0794	0.0864	0.0880	0.0895	0.0928	0.0987
1977	0.1076	0.0765	0.0814	0.0829	0.0845	0.0859	0.0896
1978	-0.0174	0.0840	0.0877	0.0888	0.0900	0.0917	0.0947
1979	0.1221	0.0921	0.0962	0.0978	0.0995	0.1017	0.1064
1980	0.1275	0.1115	0.1182	0.1211	0.1241	0.1271	0.1352
1981	0.1464	0.1349	0.1427	0.1458	0.1489	0.1529	0.1616
1982	0.2292	0.1309	0.1439	0.1448	0.1464	0.1532	0.1610
1983	0.2372	0.1115	0.1247	0.1229	0.1237	0.1298	0.1350
1984	0.2219	0.1247	0.1297	0.1339	0.1341	0.1374	0.1434
1985	0.3232	0.1104	0.1187	0.1179	0.1189	0.1228	0.1270
1986	0.3575	0.0802	0.0908	0.0930	0.0940	0.0973	0.1015
1987	-0.0544	0.0843	0.0934	0.0946	0.0953	0.0985	0.1027
1988	0.1849	0.0897	0.1013	0.1009	0.1014	0.1040	0.1083
1989	0.4351	0.0854	0.0938	0.0949	0.0955	0.0980	0.1001
1990	0.0069	0.0858	0.0943	0.0959	0.0964	0.0985	0.1009
1991	0.0931	0.0818	0.0891	0.0915	0.0921	0.0943	0.0961
1992	0.1183	0.0769	0.0822	0.0860	0.0869	0.0887	0.0897
1993	0.1661	0.0671	0.0737	0.0776	0.0780	0.0805	0.0816
1994	-0.0825	0.0730	0.0794	0.0799	0.0802	0.0826	0.0868
1995	0.3772	0.0708	0.0781	0.0774	0.0776	0.0813	0.0857
1996	0.0550	0.0672	0.0745	0.0742	0.0745	0.0762	0.0805
1997	0.1959	0.0670	0.0746	0.0743	0.0746	0.0747	0.0782
1998	0.1896	0.0572	0.0682	0.0674	0.0677	0.0687	0.0710
1999	-0.0998	0.0592	0.0710	0.0740	0.0748	0.0743	0.0766
2000	0.5475	0.0607	0.0790	0.0817	0.0821	0.0830	0.0839
2001	-0.2877	0.0557	0.0747	0.0777	0.0780	0.0787	0.0810
2002	-0.2934	0.0542		0.0730	0.0730	0.0754	0.0818
2003	0.2509	0.0496		0.0646	0.0646	0.0623	0.0673
2004	0.2763	0.0505		0.0608	0.0608	0.0617	0.0641
2005	0.2151	0.0465		0.0546	0.0546	0.0566	0.0592
2006	0.2323	0.0499		0.0583	0.0583	0.0607	0.0632
2007	0.1434	0.0493		0.0591	0.0591	0.0605	0.0629
2008	-0.3160	0.0448		0.0619	0.0619	0.0650	0.0711
2009	0.1801	0.0401		0.0579	0.0579	0.0610	0.0721
2010	0.0795	0.0405		0.0525	0.0525	0.0548	0.0598
2011	0.2051	0.0375		0.0489	0.0489	0.0514	0.0565
2012	0.1272	0.0256		0.0385	0.0385	0.0416	0.0490
2013	0.1363	0.0302		0.0417	0.0417	0.0441	0.0492
2014	0.3017	0.0316		0.0424	0.0424	0.0435	0.0485
2015	-0.0629	0.0254		0.0397	0.0397	0.0408	0.0496
2016	0.1834	0.0221		0.0373	0.0373	0.0394	0.0474
2017	0.1966	0.0267		0.0386	0.0386	0.0404	0.0443
2018	0.0644	0.0307		0.0404	0.0404	0.0420	0.0460

Palmetto Utilities, Inc.  
Common Equity Cost Rate Summary

	<u>Water Group Followed by Analysts</u>		
	<u>DCF(1)</u>	<u>CAPM(2)</u>	<u>RP(3)</u>
Common Equity Cost Rate Range	10.10 %	9.80 %	10.40 %
Investment Risk Adjustments (4)	<u>0.40</u>	<u>0.40</u>	<u>0.40</u>
Palmetto Utilities, Inc. Adjusted Common Equity Cost Rate Range:	<u>10.50</u>	<u>10.20</u>	<u>10.80</u>
Palmetto Utilities, Inc. Recommended Common Equity Cost Rate (5)	<u><u>10.50 %</u></u>		
Check of Reasonableness of Common Equity Cost Rate (6)	9.5 % to 14.0 %		

- Notes: (1) From Schedule 12 and explained in the Direct Testimony.  
(2) From Schedule 17 and explained in the Direct Testimony.  
(3) From Schedule 18 and explained in the Direct Testimony.  
(4) As explained in the Direct Testimony.  
(5) As explained in the Direct Testimony, the recommendation is only applicable to a rate making common equity ratio of 58%. (~58.21%)  
(6) See page 2 of Schedule 14.